Reply to Office Action of September 30, 2008

AMENDMENTS TO THE CLAIMS

Docket No.: 12810-00264-US1

This Listing of Claims replaces all prior versions and listings of claims in this application.

Listing of Claims:

- 1. (Currently amended) An expandable expandable, pelletized styrene polymer material having a bi- or multimodal molecular weight distribution, which, based in each case on the entire styrene polymer content, comprises
- i) from 0.1 to 30% by weight of a styrene copolymer with a weight-average molar mass M_w in the range from 1000 to 20 000 g/mol, and
- ii) from 99.9 to 70% by weight of standard polystyrene (GPPS) with a weight-average molar mass M_w in the range from 160 000 to 400 000 g/mol.
- 2. (Currently amended) The expandable expandable, pelletized styrene polymer according to claim 1 wherein the styrene copolymer used comprises a copolymer composed of styrene, acrylic acid and/or α-methylstyrene.
- 3. (Previously presented) The expandable, pelletized styrene polymer material according to claim 1 which comprises from 3 to 7% by weight of an organic blowing agent.
- 4. (Currently amended) A process for preparing expandable expandable, pelletized styrene polymer materials according to claim 1, comprising the steps of
- a) preparing a mixture of styrene polymers which, based in each case on the entire styrene polymer contents comprise
- i) from 0.1 to 30% by weight of a styrene copolymer with a weight-average molar mass M_w in the range from 1000 to 20 000 g/mol, and
- ii) from 99.9 to 70% by weight of standard polystyrene (GPPS) with a weight-average molar mass M_w in the range from 160 000 to 400 000 g/mol. g/mol.

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b) mixing to incorporate an organic blowing agent into the polymer melt by means of a static or dynamic mixer at a temperature of at least 150°C,

- c) cooling the polymer melt comprising blowing agent to a temperature of at least 120°C,
- d) discharge via a die plate with holes whose diameter at the discharge from the die is at most 1.5 mm, and
- e) pelletizing the melt comprising blowing agent directly downstream of the die plate under water at a pressure in the range from 1 to 25 bar.
- 5. (Currently amended) A process for producing moldable-foam moldings, which comprises, in a first step, using hot air or steam to prefoam expandable expandable, pelletized styrene polymer materials according to claim 1 to give foam beads whose density is in the range from 8 to 100 g/l, and, in a 2nd step, fusing these materials in a closed mold.
- 6. (Currently amended) The expendable, pellitized pelletized styrene polymer material according to claim 2, which comprises from 3 to 7% by weight of an organic blowing agent.
- 7. (New) The expandable, pelletized styrene polymer according to claim 1 wherein the standard polystyrene (GPPS) has a weight-average molar mass M_w in the range from 220 000 to 300 000 g/mol.